

## ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY (VERIFICATION)

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

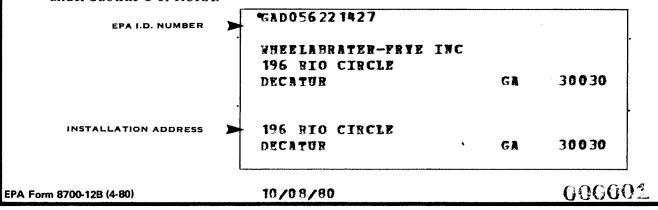
under Buedice e of Reful.	•					
EPA I.D. NUMBER		GAD056221427				•
		WHEELABRATER-FRYE 196 RIO CIRCLE DECATUR	INC	G A	30030	•
INSTALLATION ADDRESS		196 RIO CIRCLE DECATUR	•	G A	30030	•
EPA Form 8700-12B (4-80)		10/24/80			00	0001

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<b>SEPA</b>		ION OF HAZARDO	IVITY	INSTRUCTIONS: If you received a preprinted label, affix it in the space at left, If any of the				
INSTALLA- TION'S EPA I.D. NO.		00009			information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is			
NAME OF IN-	GAD056221	1427			complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted			
INSTALLA- TION II. MAILING ADDRESS	WHEELABRAT 136 RIO CI DECATUR, (		RECEIVE EPA/RECIO	ED IA	label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION.			
LOCATION IIL OF INSTAL- LATION	196 RIO C BECATUR, (		HUG 25 12 40 EMFORGEN	ng. Tat	CATION before completing this form. The information requested herein is required by law (Section 3010 of the Resource Conservation and Recovery Act).			
FOR OFFICIAL	USE ONLY	COL	MMENTS	,				
c III					55			
	ION'S EPA I.D. NUM		(yr., mo., & day)					
F		3 1	800818					
I. NAME OF INS	STALLATION							
					67			
II. INSTALLAT	ION MAILING AD	2000-00-00-00-00-00-00-00-00-00-00-00-00	"Sarah da		10000000000000000000000000000000000000			
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IV. INSTALLAT		ND TITLE (last, first, & jo	b title)		PHONE NO. (area code & no.)			
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2 L O U I S	I KAII IN K	E F F K N	I MAINIAIG	STAL L	45 46 - 48 49 - 51 52 - 55			
V. OWNERSHIP		A. NAME OF INSTAL	LATION'S LEGAL OW	NER	- 1,6			
8 W H E E I	ABRATO	R - F R Y E ,	I N C.					
B. TYPE OF (enter the appropr	OWNERSHIP iate letter into box)	VI. TYPE OF HAZAI	RDOUS WASTE AC	TIVITY (e	enter "X" in the appropriate box(es))			
F = FEDERA		X A. GENERA			TRANSPORTATION (complete item VII)			
M = NON-FE	DERAL 11	C. TREAT/S ON (transporters only -	enter "Y" in the ar	60	hox/esil			
A. AIR	B. RAIL	C. HIGHWAY	D. WATER	-	R (specify): NOT:			
• • • • • • • • • • • • • • • • • • • •	62	10	77	18	1401			
VIII. FIRST OR SUBSEQUENT NOTIFICATION  Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification.  If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.								
_		s:		-	C. INSTALLATION'S EPA I.D. NO.			
	ON OF HAZARDO		NT NOTIFICATION (	ompiete ite				
IX. DESCRIPTION OF HAZARDOUS WASTES  Please go to the reverse of this form and provide the requested information.								

IX. DESCRIPTION OF HAZARDOUS WASTES (continued from front)							
A. HAZARDOUS WASTES FROM NON-SPECIFIC SOURCES. Enter the four-digit number from 40 CFR Part 261.31 for each listed hazardous waste from non-specific sources your installation handles. Use additional sheets if necessary.							
1	2	3	4	5	6		
23 - 26	23 - 26 23	- 26	23 - 26	11	12		
7	8	9	10	<del>                                      </del>			
		25	23 : 26	23 26	12 DE H		
B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four—digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.							
13	14	15	16	17	18		
23 - 26	23 - 26 23	- 26	23 - 26	23 - 26	23 - 26		
19	20	21	22	23	24		
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25 - 26	26 26	27	28 28	29	30		
	TÎT		TTT				
23 - 26	23 - 26 23	- 26	23 - 26	23 £ 26	23 - 26		
C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four—digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.							
31	32	33	34	35	36		
P 0 3 0	U 2 2 6						
23 - 26	23 - 26 23		40	41	42		
37	38	39		Hill			
23 - 26	23 - 26 23	1 26	23 - 26	23 - 26	23 - 26		
43	44	45	46	47	48		
23 - 26	23 - 26 23	- 26	23 - 26	listed barredous wasts f	rom bosnitale veterinary		
D. LISTED INFECTIOUS WAST hospitals, medical and research	ES. Enter the four—digit n laboratories your installat	ion handles. Use add	itional sheets if neces	sary.	rom nospitals, veterinary		
49	50	51	52	53	54		
			23 - 26		22 24		
E. CHARACTERISTICS OF NON-LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non-listed hazardous wastes your installation handles. (See 40 CFR Parts 261.21 – 261.24.)							
1. IGNITABLE	2. col	RROSIVE	3. REACT		□4. TOXIC 2000)		
X. CERTIFICATION		4 ( ) 40					
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
SIGNATURE		NAME & OFFICIA	L TITLE (type or pri	nt)	DATE SIGNED		
2507(C Ca)	21	Robert B.		-15500			
Director of Research					8/12/80		

EPA Form 8700,12.(6,80) REVERSE



POST OFFICE BOX 854 • DES MOINES, IOWA 50304 • (515) 263-3800

August 12, 1980

EPA Region IV RCRA Activities 345 Courtland N. E. Atlanta, GA 30308

Gentlemen:

The P030 on the attached form is Iron Blue. Descriptive information from the Chemical Encyclopedia is attached. The U226 noted is used for quality control decoating operations only.

If there are any additional questions, please feel free to contact either the General Manager noted on the form or myself.

Sincerely,

Robert B. Walker

Director of Research

Ast B Walken

RBW/mp

Attachment

ceramic-tile glazes, rubber, alkaliproof printing inks, limeproof paints, concrete and stucco paints, and bridge paints. The commercial products have a sp gr from 5.05 to 5.20, oil absorption from 10 to 19 lb of linseed oil per 100 lb of pigment, and no more than 1% is retained on a No. 325 sieve.

Hydrated Chromium Oxide. Hydrated chromium oxide, Cr<sub>2</sub>O<sub>3</sub>.2H<sub>2</sub>O or Cr<sub>2</sub>O-(OH)4, also known as chromium hydrate, Guignet's green, or veridian, is a clean, brilliant bluish-green pigment which is almost as lightfast as the much less brilliant chromium oxide. It is made by the high-temperature fusion of a bichromate, such as sodium bichromate, with boric acid, after which the fusion product is hydrolyzed during the washing operation,

$$\begin{split} \mathrm{Na_2Cr_2O_7} + 16\ \mathrm{H_3BO_3} &\rightarrow \mathrm{Cr_2(B_4O_7)_3} + \mathrm{Na_2B_4O_7} + 24\ \mathrm{H_2O} + 3\ \mathrm{O} \\ &-\mathrm{Cr_2(B_4O_7)_3} + 20\ \mathrm{H_2O} \rightarrow \mathrm{Cr_2O(OH)_4} + 12\ \mathrm{H_3BO_3} \end{split}$$

Its brilliance, lightfastness, very good resistance to alkalies, and excellent resistance to temperatures up to 500°F make hydrated chromium oxide outstanding for certain uses. However, it is relatively expensive (\$1.60/lb in the U.S. in 1967), is semitransparent, and has a relatively high oil absorption. These features require that it usually be used with more opaque white or yellow pigments to provide adequate hiding power.

Commercial pigments of this kind have a sp gr in the range of 3.56 to 3.71, and their oil absorptions are relatively high, on the order of 110 lb of linseed oil per 100

lb of pigment.

The miscellaneous green inorganic pigments include those which find only limited use. Paris green is one of the more important; it is also known as emerald green, Schweinfurt green, and imperial green. It is a copper acetoarsenite with the approximate formula Cu(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>.3Cu(AsO<sub>2</sub>)<sub>2</sub>. It is well known for its poisonous properties and is now seldom used as a pigment except in special paints to withstand chewing insects in the tropics.

Other copper compounds with pigmentary properties are copper cyanide, Cu(CN)2, a yellow-green powder that can be used for antifouling marine paints, and copper resinate, the reaction product of a copper salt (eg, copper acetate) with a resinous material such as turpentine or balsam. Scheele's green, an acid copper arsenite (Cu-HAsO<sub>3</sub>), and verdigris, a name for copper dibasic acetate (Cu(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>.2Cu(OH)<sub>2</sub>), and other related copper carbonates and acetates, find very limited use as pigments. Prussian blue mixed with gamboge, a natural green resin, is known as Hooker's green. The greenish shade of the ultramarines (see below) is called ultramarine green, and green earth (terre verte) is a naturally occurring hydrous iron, magnesium, aluminum, potassium silicate. Cobalt green, also called Rinmann's green and zinc green, is a fire-processed material consisting of cobalt and zinc, and sometimes also alumina.

# Blue and Purple Pigments

The two principal blue inorganic pigment groups are the iron blues and the ultramarine blues. Both are synthetic products, the iron blues having been made for well over 250 years and the ultramarines for more than a century.

Iron Blues (see Iron cyanide blues under Iron compounds). The iron blues are very strong pigments which may appear almost black in the full color. They are produced in a range of masstones from a reddish, somewhat muddy or plumlike color to an

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intense jet-black masstone. When iron blues are reduced by mixing with a white opaque pigment, the shade of the tints will be found to range from a reddish blue to a greenish blue.

The iron blues have been known by many names, such as Prussian blue, Chinese, milori, steel, bronze and nonbronze blues, lacquer and toning blues, and others. Such names have been applied so indiscriminately that much of their original special meanings have been almost lost. "Prussian blue" usually means a pigment with a comparatively reddish tint while "Chinese" refers to one having a relatively greenish tint.

The first iron blues were made about 1704 in Germany. They were complex potassium ferriferrocyanides (iron hexacyanoferrates, see Vol. 12, p. 33) with the approximate composition FeK(Fe(CN)<sub>6</sub>), made by the precipitation of a ferrous salt with potassium ferrocyanide. The resultant white precipitate of potassium ferroferrocyanide (Berlin white) was then oxidized to the blue potassium ferriferrocyanide called "potash" blue. Iron blues were made in this way until World War I when the acute shortage of potash forced the development of blues made from sodium ferrocyanide and known as "soda" blues. Very little "potash" blue is now made because the "soda" blues are equally good and considerably cheaper. The "soda" blues are complex ammonium iron hexacyanoferrates made by the following general reactions:

$$\label{eq:FeSO_4} FeSO_4 \ + \ Na_4(Fe(CN)_6) \ + \ (NH_4)_2SO_4 \ \rightarrow \ Fe(NH_4)_2(Fe(CN)_6) \ + \ 2\ Na_2SO_4 \\ 6\ Fe(NH_4)_2(Fe(CN)_6) \ + \ NaClO_3 \ + \ 3\ H_2SO_4 \ \rightarrow$$

 $6 \text{ Fe(NH_4)(Fe(CN)_6)} + \text{NaCl} + 3 \text{ H}_2\text{O} + 3 \text{ (NH_4)}_2\text{SO}_4$ 

Tanks made of wood or another inert material are required for solutions, precipitation reactions, washing, and settling. The iron blue precipitates are extremely fine and settle very slowly during the washing and decantation steps. Filtering, drying, and pulverizing complete their manufacture.

The iron blues are characterized by high tinting strength, good hiding power when used in the deeper colors, and rather good permanence in such deeper colors. They have very good resistance to acids but are very sensitive to even weak bases which turn them brown. They are also reduced, with a consequent loss of blue color, under certain conditions of use. Prolonged storage of paints that contain large quantities of oil which dries by oxidation may cause a fading of the blue color, particularly noticeable in light tints. Upon application and drying of the paint, most of the blue color usually returns as a result of reoxidation. Light tints tend to fade on prolonged exposure to light. The iron blues are classed as hard pigments to grind or disperse in most paint vehicles, and are quite reactive with some vehicles.

Iron blues are offered in a wide range of physical properties which depend on variations in composition and particle size, which are very closely controlled during their manufacture. Many special types have been produced to meet the demands of particular industries which use them. In specific gravity, they run from 1.61 to 1.93 and oil absorption varies widely, from 33 to 65 lb of linseed oil per 100 lb of pigment. Compositional and property requirements are given in Federal Specification TT-P-385, British Standard 283, and ASTM D 261-47.

Iron blues are used in all kinds of paints and enamels, such as sash and trim paints, automotive enamels, lacquers, and "metallic" finishes. They are also used extensively in inks and printing inks, carbon-paper inks, crayons, linoleum, composi-

tion flooring, paper, laundry blues, etc. For use in making chrome greens (see above) the green shades of the ion blues are preferred.

Over the ten-year period 1957 to 1966, iron blue pigments sold in the U.S. at a low of 52¢/lb in ton lots at New York, and at a high of 58¢. In 1967, they sold at 57-59¢.

A special form known as "soluble blue" is used as a colorant for paper; it is made by pulping the washed filter cake of iron blue with either potassium ferrocyanide or oxalic acid, drying the well-mixed slurry, and pulverizing; when the dry powder is added to water, it disperses at once into a colloidal state.

Ultramarine Blues. The very bright, pure shades of the ultramarine blues and their resistance to heat and alkalies make them important and useful members of the inorganic-pigment group. Ultramarines are produced in shades ranging from those with a strong red cast, which are called *ultramarine violet* or *ultramarine red*, to those with the greenest cast and known as *ultramarine greens*. The difference in shades is, in general, the result of a difference in composition and particle size.

The ultramarines are extremely complex combinations of silica, alumina, soda, and chemically combined sulfur, and bear a close relationship to the natural zeolites. They occur in nature as lapis lazuli (lazurite); formerly, the ground natural product was extensively used as a pigment. Typical of the wide range of composition is the following: SiO<sub>2</sub>, 37–50%; Al<sub>2</sub>O<sub>3</sub>, 23–29%; Na<sub>2</sub>O, 19–23%; sulfur, 10–14%; and moisture and other volatile matter, 1–2%.

The chemistry of the ultramarines is not well understood. It appears to be established that the sulfur is of most importance in forming the color. It is also reported that the less silica is used, the greener is the cast, while a higher silica content produces the reddish cast. The grouping of the elements is still in debate.

In one process for making ultramarine blue, a mixture of sulfur, silica, clay, soda ash, and a reducing agent are calcined at about 1500°F for about 24 hr. China clay may be used as the source of the silica, and rosin, pitch, or charcoal may be used as reducing agents. When firing is completed and the kilns have cooled very slowly, the calcined material is carefully washed to remove sodium sulfate and other soluble salts formed in the process. The washed material is then wet-ground, water-levigated, dried, and powdered. The resultant fractions are a graduated series of particle sizes which differ in properties such as tinting strength and color value. The fractions are blended to make the finished pigments.

In another typical manufacturing process, the calcination is carried out in two stages. China clay, sulfur, soda ash, and a reducing agent such as carbon or rosin are mixed together, then heated over a 4- or 5-hr period to about 875°C and held at that temperature for from 6 to 12 hr. The furnace and the reaction mass are then allowed to cool very slowly, taking as much as five days per unit. The fused mass of primary green product is very carefully ground and then mixed with sulfur and again heated to a bright-red condition for another 3-6 days. Careful control must be exercised in each step in order to obtain the desired color. The product is finished by washing, grinding, levigation, drying, and pulverizing as in the direct process.

Ultramarine blue has been produced since about 1828 when it was introduced by Guimet, a French chemist. It has a characteristic brilliance not matched by other blues but, when used alone in paints, it is quite transparent; its tinting strength is rather low compared to other blue pigments. It is unaffected by most alkalies

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# To Frye Copyrystems, Inc.

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EPA - REGION IV RORA ACTIVITIES 345 COURTLAND N.E. ATLANTA, GA 30308



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P. O. BOX 939 • 196 RIO CIRCLE • DECATUR, GEORGIA 30031

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April 28, 1981 RECEIVED EPA/REGION IV

E. P. A. 345 Courtland Street N.E. Atlanta, Georgia 30365

APR 23 | LOE PR 161 ENFORMATION

Attention: Paul Keith

Dear Mr. Keith,

Plant EPA 1.D. #GAD056221427

After carefully reciewing our hazardous waste activities, we find that we are a small quantity generator. We, therefore, request that our notification of hazardous waste activity be placed in the small quantity generator status file. Please inform us of when this reassignment is completed.

Sincerely, Jami Pathke

Louis Rathke,

Southern Regional Manager

LR/by

ADDT

[7]SC

June in Koppens file (Part +)

6801 ROCKLEDGE DRIVE

TELEPHONE (301) 897-6129

BETHESDA, MARYLAND, 20034

ELLIOTT D. LIGHT ASSISTANT GENERAL COUNSEL

June 4, 1981

U. S. EPA Region 3 Sites Notification Philadelphia, PA. 19106

## Gentlemen:

MARTIN MARIETTA CORPORATION

Martin Marietta Corporation hereby files this notification pursuant to the comprehensive Environmental Response, Compensation, and Liability Act of 1980 (P. L. 96-510), commonly referred to as Superfund. As noted in guidelines issued by EPA concerning the attached notice, EPA is primarily interested in identifying abandoned sites known to contain hazardous wastes. However, because of severe penalties associated with a failure to report, and in order to protect all legal defenses available to it, Martin Marietta feels legally compelled to notify EPA of the fact of our past ownership of a company which may or may not have handled hazardous materials.

In February of 1971, Martin Marietta sold to Frye Industries, Inc. (currently doing business as Wheelabrator - Fry Incorporated) a division doing business as Sinclair and Valentine, a producer of printing inks. Sinclair and Valentine had approximately fourty-four producing facilities located in twenty-six states. Martin Marietta has no known records of any treatment, disposal, or storage facilities used by Sinclair and

A copy of Form 8900-1 is attached. Also attached is a list of plant locations which list was derived from the closing documents of the sale of Sinclair and Valentine.

Sincerely,

Ellisa D.C Elliott D. Light

EDL:mlm Attachments

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